

WHAT IS CLAIMED IS:

1. A program product that helps service processes receive instructions from an operator, the  
5 program product causing a computer system to perform a process comprising the steps of:

(a) storing an inquiry to the operator in an inquiry buffer, upon issuance thereof from a service process;

10 (b) retrieving the inquiry pending in the inquiry buffer and sending the retrieved inquiry to the first client over a network, in response to a first delivery request from a first client;

(c) forwarding a reply received from the first  
15 client to the service process, as well as storing the received reply and corresponding inquiry as a log record in a log memory; and

(d) retrieving log records from the log memory and sending the retrieved log records to a second client  
20 on the network, in response to a second delivery request from the second client.

2. The program product according to claim 1, wherein the first and second clients are implemented on a  
25 single computer platform.

3. The program product according to claim 1,

wherein:

the second delivery request contains search conditions for the log memory; and

5        said log record retrieving step (d) retrieves log records that match with the search conditions specified by the second client.

4.        The program product according to claim 1, wherein:

10        the second delivery request from the second client requests delivery of a message log record; and

15        in response to the second delivery request for the message log record, said log record retrieving step (d) retrieves a log record and sends inquiry-related part of the retrieved log record to the second client.

5.        The program product according to claim 1, wherein:

20        the second delivery request from the second client requests delivery of a reply log record; and

25        in response to the second delivery request for the reply log record, said log record retrieving step (d) retrieves a log record and sends reply-related part of the retrieved log record to the second client.

6.        The program product according to claim 5, wherein:

the second delivery request from the second client requests delivery of a reply log record associated with a particular inquiry; and

5        said log record retrieving step (d) retrieves log records that match with the particular inquiry specified in the second delivery request and sends reply-related part of the retrieved log records to the second client.

7.        The program product according to claim 1,  
10        wherein the inquiries sent at said inquiry sending step (b) include a list of possible answers to one of the inquiries.

8.        The program product according to claim 1,  
15        wherein said inquiry sending step (b) consults the log memory before sending the pending inquiry to retrieve records of past replies that were made to inquiries about the same subject as the pending inquiry to be sent, and sends the retrieved records of past replies together with  
20        the pending inquiries.

9.        The program product according to claim 1,  
further comprising the step of notifying the service process of cancellation of the pending inquiry if there is  
25        no reply to the pending inquiry within a specified timeout period.

10. The program product according to claim 9,  
wherein:

the timeout period is specified in the pending  
inquiry sent at said inquiry sending step (b); and

5 said notifying step notifies the service process  
of cancellation when expiration time of the pending  
inquiry is reached, the expiration time being calculated  
by adding the specified timeout period to issuance time of  
the pending inquiry.

10 11. The program product according to claim 10,  
wherein:

the timeout period is indirectly specified by a  
timeout period identifier of the pending inquiry; and

15 said notifying step calculates the expiration time  
with reference to a predefined timeout period table that  
associates a plurality of timeout period identifiers with  
corresponding timeout periods.

20 12. The program product according to claim 1,  
further comprising the step of dispatching a command upon  
receipt of the reply to the pending inquiry, wherein the  
command is previously associated with the pending inquiry  
so as to initiate a particular processing task related  
25 thereto.

13. The program product according to claim 12,

wherein said command dispatching step adds the received reply as a parameter of the command to be dispatched.

14. A method that helps service processes  
5 receive instructions from an operator, the method comprising the steps of:

(a) storing an inquiry to the operator in an inquiry buffer, upon issuance thereof from a service process;

10 (b) retrieving the inquiry pending in the inquiry buffer and sending the retrieved inquiry to the first client over a network, in response to a first delivery request from a first client;

(c) forwarding a reply received from the first  
15 client to the service process, as well as storing the received reply and corresponding inquiry as a log record in a log memory; and

(d) retrieving log records from the log memory and sending the retrieved log records to a second client  
20 on the network, in response to a second delivery request from the second client.

15. An apparatus that helps service processes receive instructions from an operator, comprising:

25 an inquiry buffer that stores inquiries;

a log memory that stores records of past inquiries and corresponding replies;

an inquiry receiver that receives an inquiry from the service processes and stores the received inquiry in said inquiry buffer;

5 an inquiry message sender, responsive to a first delivery request from a first client, which retrieves the inquiry pending in said inquiry buffer and sends the retrieved inquiry to the first client over a network;

10 a reply message receiver, responsive to a reply received from the first client, which forwards the received reply to the service process, as well as storing the received reply and corresponding inquiry as a log record in said log memory; and

15 a log record sender, responsive to a second delivery request from a second client on the network, which retrieves log records from said log memory and sends the retrieved log records to the second client.

16. A computer-readable storage medium storing a program that helps service processes receive instructions from an operator, the program causing a computer system to perform a process comprising the steps of:

25 (a) storing an inquiry to the operator in an inquiry buffer, upon issuance thereof from a service process;

(b) retrieving the inquiry pending in the inquiry buffer and sending the retrieved inquiry to the

first client over a network, in response to a first delivery request from a first client;

(c) forwarding a reply received from the first client to the service process, as well as storing the received reply and corresponding inquiry as a log record in a log memory; and

(d) retrieving log records from the log memory and sending the retrieved log records to a second client on the network, in response to a second delivery request from the second client.

17. An apparatus that helps service processes receive instructions from an operator, comprising:

inquiry buffer means for storing inquiries;

15 log memory means for storing records of past inquiries and corresponding replies;

inquiry receiving means for receiving an inquiry from the service processes and stores the received inquiry in said inquiry buffer means;

20 inquiry message sending means, responsive to a first delivery request from a first client, for retrieving the inquiry pending in said inquiry buffer means and sending the retrieved inquiry to the first client over a network;

25 reply message receiving means, responsive to a reply received from the first client, for forwarding the received reply to the service process and storing the

received reply and corresponding inquiry as a log record in said log memory means; and

log record sending means, responsive to a second delivery request from a second client on the network, for  
5 retrieving log records from said log memory means and sending the retrieved log records to the second client..